WHAT IS CLAIMED IS:

1. A surface acoustic wave device comprising:

a piezoelectric substrate; and

first and second surface-acoustic-wave filter elements arranged on said piezoelectric substrate so as to have a balanced-to-unbalanced conversion function, said first and second surface-acoustic-wave filter elements each including at least two interdigital transducers arranged along a propagation direction of surface acoustic waves, and a first reflector and a second reflector which are arranged such that said at least two interdigital transducers are arranged along the propagation direction between the first and second reflectors; wherein

the first and second reflectors differ in structure, and in said first and second surface-acoustic-wave filter elements, the first reflectors have the same structure, and the second reflectors have the same structure.

2. A surface acoustic wave device according to claim 1, wherein a number of electrode fingers of said first reflector differs from a number of electrode fingers of said second reflector in the respective first and second surface-acoustic-wave filter elements.

3. A surface acoustic wave device according to claim 1, wherein a duty of said first reflector differs from a duty of said second reflector in the respective first and second surface-acoustic-wave filter elements.

4. A surface acoustic wave device according to claim 1, wherein an electrode-finger pitch of said first reflector differs from the electrode-finger pitch of said second reflector in the respective first and second surface-acoustic-wave filter elements.

5. A surface acoustic wave device comprising:

a piezoelectric substrate; and

first and second surface-acoustic-wave filter elements arranged on said piezoelectric substrate so as to have a balanced-to-unbalanced conversion function, said first and second surface-acoustic-wave filter elements each including at least two interdigital transducers arranged along a propagation direction of surface acoustic waves, and a first reflector and a second reflector which are arranged so that said at least two interdigital transducers are provided along the propagation direction between the first and second reflectors; wherein

in each of said first and second surface-acoustic-wave filter elements, a first center-to-center distance of the adjacent electrode fingers between said first reflector and one interdigital transducer adjacent thereto differs from a second center-to-center distance of the adjacent electrode fingers between said second reflector and one interdigital transducer adjacent thereto; and

the first and second center-to-center distances of the first surface-acoustic-wave filter element is the same as the corresponding first and second center-to-center distances of the second surface-acoustic-wave filter element.

6. A surface acoustic wave device comprising:

a piezoelectric substrate; and

first and second surface-acoustic-wave filter elements arranged on said piezoelectric substrate so as to have a balanced-to-unbalanced conversion function, said first and second surface-acoustic-wave filter elements each including at least two interdigital transducers arranged along a propagation direction of surface acoustic waves, and a first reflector and a second reflector which are arranged so that said at least two interdigital transducers are provided along the propagation direction between the first and second reflectors; wherein

the first and second reflectors are weighted by apodization; and

in said first and second surface-acoustic-wave filter elements, the first reflectors have the same structure, and the second reflectors have the same structure.

7. A surface acoustic wave device comprising:

a piezoelectric substrate; and

first and second surface-acoustic-wave filter elements arranged on said piezoelectric substrate so as to have a balanced-to-unbalanced conversion function, said first and second surface-acoustic-wave filter elements each including at least two interdigital transducers arranged along a propagation direction of surface acoustic waves, and a first reflector and a second reflector which are arranged so that said at least two interdigital transducers are provided along the propagation direction between the first and second reflectors; wherein

in at least one portion of at least one of said first reflector and said second reflector, at least one of an electrode-finger width and an electrode-finger gap differs compared with surrounding electrode fingers; and

in said first and second surface-acoustic-wave filter elements, the first reflectors have the same structure, and the second reflectors have the same structure.

8. A surface acoustic wave device comprising:

a piezoelectric substrate; and

first and second surface-acoustic-wave filter elements arranged on said piezoelectric substrate so as to have a balanced-to-unbalanced conversion function, said first and second surface-acoustic-wave filter elements each including at least two interdigital transducers arranged along a propagation direction of surface acoustic waves, and a first reflector and a second reflector which are arranged so that said at least two interdigital transducers are provided along the propagation direction between the first and second reflectors; wherein

in at least one portion of at least one of said first reflector and said second reflector, a duty differs compared with surrounding electrode fingers; and

in said first and second surface-acoustic-wave filter elements, the first reflectors have the same structure, and the second reflectors have the same structure.

9. A surface acoustic wave device according to claim 1, further comprising a cascade-connected surface-acoustic-wave filter element.

10. A surface acoustic wave device comprising:

a piezoelectric substrate; and

first, second, third, and fourth surface-acoustic-wave filter elements arranged on said piezoelectric substrate so as to have a balanced-to-unbalanced conversion function, said first, second, third, and fourth surface-acoustic-wave filter elements each including at least two interdigital transducers arranged along a propagation direction of surface acoustic waves, and a set of reflectors arranged so that said at least two interdigital transducers are provided along the propagation direction between opposite reflectors of the set of reflectors; wherein

the first and third surface-acoustic-wave filter elements are cascade-connected to each other, and the second and fourth surface-acoustic-wave filter elements are cascade-connected to each other;

the first and second surface-acoustic-wave filter elements have the same sets of reflectors, and the third and fourth surface-acoustic-wave filter elements have the same sets of reflectors; and

the sets of reflectors in the first and second surface-acoustic-wave filter elements differ in structure from the sets of reflectors in the third and fourth surface-acoustic-wave filter elements.

11. A surface acoustic wave device comprising:

a piezoelectric substrate; and

first, second, third, and fourth surface-acoustic-wave filter elements arranged on said piezoelectric substrate so as to have a balanced-to-unbalanced conversion function, said first, second, third, and fourth surface-

acoustic-wave filter elements each including at least two interdigital transducers arranged along a propagation direction of surface acoustic waves, and a set of reflectors arranged so that said at least two interdigital transducers are provided along the propagation direction between opposite reflectors of the set of reflectors; wherein

the first and third surface-acoustic-wave filter elements are cascade-connected to each other, and the second and fourth surface-acoustic-wave filter elements are cascade-connected to each other;

the first and fourth surface-acoustic-wave filter elements have the same sets of reflectors, and the second and third surface-acoustic-wave filter elements have the same sets of reflectors; and

the sets of reflectors in the first and fourth surface-acoustic-wave filter elements differ in structure from the sets of reflectors in the second and third surface-acoustic-wave filter elements.

12. A surface acoustic wave device according to claim 10, wherein a number of electrode fingers of the reflector in the first surface-acoustic-wave filter element differs from a number of electrode fingers of the reflector in the third surface-acoustic-wave filter element, and a number of electrode fingers of the reflector in the second surface-acoustic-wave filter element differs from a number of electrode fingers of the reflector in the fourth surface-acoustic-wave filter element.

13. A surface acoustic wave device according to claim 10, wherein a duty of the reflector of the first surface-acoustic-wave filter element differs from a duty of the reflector of the third surface-acoustic-wave filter element, and a

duty of the reflector of the second surface-acoustic-wave filter element differs from a duty of the reflector of the fourth surface-acoustic-wave filter element.

14. A surface acoustic wave device according to claim 10, wherein an electrode-finger pitch of the reflector of the first surface-acoustic-wave filter element differs from an electrode-finger pitch of the reflector of the third surface-acoustic-wave filter element, and an electrode-finger pitch of the reflector of the second surface-acoustic-wave filter element differs from an electrode-finger pitch of the reflector of the fourth surface-acoustic-wave filter element.

15. A surface acoustic wave device comprising:

a piezoelectric substrate; and

first, second, third, and fourth surface-acoustic-wave filter elements arranged on said piezoelectric substrate so as to have a balanced-to-unbalanced conversion function, said first, second, third, and fourth surface-acoustic-wave filter elements each including at least two interdigital transducers arranged along a propagation direction of surface acoustic waves, and a set of reflectors arranged so that said at least two interdigital transducers are provided along the propagation direction between opposite reflectors of the set of reflectors; wherein

the first and third surface-acoustic-wave filter elements are cascade-connected to each other, and the second and fourth surface-acoustic-wave filter elements are cascade-connected to each other;

a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the first surface-acoustic-wave filter element

and one interdigital transducer adjacent thereto differs from a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the third surface-acoustic-wave filter element and one interdigital transducer adjacent thereto;

a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the second surface-acoustic-wave filter element and one interdigital transducer adjacent thereto differs from a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the fourth surface-acoustic-wave filter element and one interdigital transducer adjacent thereto;

a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the first surface-acoustic-wave filter element and one interdigital transducer adjacent thereto is equal to a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the second surface-acoustic-wave filter element and one interdigital transducer adjacent thereto; and

a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the third surface-acoustic-wave filter element and one interdigital transducer adjacent thereto is equal to a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the fourth surface-acoustic-wave filter element and one interdigital transducer adjacent thereto.

16. A surface acoustic wave device comprising:

a piezoelectric substrate; and

first, second, third, and fourth surface-acoustic-wave filter elements arranged on said piezoelectric substrate so as to have a balanced-to-unbalanced conversion function, said first, second, third, and fourth surface-acoustic-wave filter elements each including at least two interdigital transducers arranged along a propagation direction of surface acoustic waves, and a set of reflectors arranged so that said at least two interdigital transducers are provided along the propagation direction between opposite reflectors of the set of reflectors; wherein

the first and third surface-acoustic-wave filter elements are cascade-connected to each other, and the second and fourth surface-acoustic-wave filter elements are cascade-connected to each other;

a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the first surface-acoustic-wave filter element and one interdigital transducer adjacent thereto differs from a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the third surface-acoustic-wave filter element and one interdigital transducer adjacent thereto;

a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the second surface-acoustic-wave filter element and one interdigital transducer adjacent thereto differs from a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the fourth surface-acoustic-wave filter element and one interdigital transducer adjacent thereto;

a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the first surface-acoustic-wave filter element

and one interdigital transducer adjacent thereto is equal to a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the fourth surface-acoustic-wave filter element and one interdigital transducer adjacent thereto; and

a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the second surface-acoustic-wave filter element and one interdigital transducer adjacent thereto is equal to a center-to-center distance of the adjacent electrode fingers between one of the reflectors in the third surface-acoustic-wave filter element and one interdigital transducer adjacent thereto.

17. A communication apparatus including a surface acoustic wave device as described in claim 1.

18. A communication apparatus including a surface acoustic wave device as described in claim 5.

19. A communication apparatus including a surface acoustic wave device as described in claim 6.

20. A communication apparatus including a surface acoustic wave device as described in claim 7.

21. A communication apparatus including a surface acoustic wave device as described in claim 8.

22. A communication apparatus including a surface acoustic wave device as described in claim 10.

23. A communication apparatus including a surface acoustic wave device as described in claim 11.

24. A communication apparatus including a surface acoustic wave device as described in claim 15.

25. A communication apparatus including a surface acoustic wave device as described in claim 16.